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9.0

REMEDIAL INVESTIGATION (RI) REPORT

An RI Report presenting results of the work implemented according to this RIWP will be submitted to the EPA and NJDEP in accordance with the schedule contained in Section 10.0. In accordance with Section D.2 of the SOW, the RI Report will consist of the following sections:

- Introduction including purpose and site background
- Description of the Passaic River Study Area investigation
- Description of Passaic River Study Area physical characteristics
- Presentation of the chemical characteristics of sediment and biota
- Description of sediment mobility modeling and results
- Description of Contaminant Fate and Transport including a qualitative description of the effect of salinity gradients
- Summary and conclusions
- Appendices including technical memoranda on field activities, analytical data and QA/QC evaluation results, and sediment mobility modeling methods

Several geostatistical methods will be evaluated for use in analyzing the spatial nature of the data. Once the data have been collected, an assessment of the distribution of the data will be performed. At that point, an appropriate geostatistical method will be used. Examples of spatial analysis methods include, but are not limited to, kriging and non-parametric kriging.

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The RI Report will not include the results of the HERA or the FSP, since these results will be presented in separate documents (described in Section 6.5 of this IWP and the FSWP, respectively). The RI Report will be prepared utilizing guidance contained in "Guidance for Conducting RI/FS under CERCLA (EPA 1988).

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10.0 SCHEDULE

Since implementation of the RI is contingent upon receiving information and data from several phases of the work being conducted under this AOC, submittal dates for deliverables required under this RIWP are dependent upon completion of a variety of prerequisite events. Therefore, the schedule for submittal of these deliverables is expressed in terms of a period of time following completion of prerequisite events required to complete the deliverable. The schedule for submittal of deliverables required under this RIWP is presented in Table 10-1, expressed in terms of time required following completion of the associated prerequisite events.

As specified in Section 4.3 of this IWP, OCC shall submit a Graphic Data Representation Report to EPA for review and for approval of the locations of the ten cores specified to be collected in Section B.3.a.i.(3) of the SOW. The schedule for submittal of the Graphic Data Representation Report is provided in Table 10-1.

As specified in Section 6.5, OCC shall submit a draft Screening Level HERA and a HERA to EPA. The schedule does not include the conduct of any field sampling associated with the HERA which may be required by EPA under the provisions of AOC Section VII, Paragraph 39.b. Should EPA require any such sampling, OCC shall submit to EPA for review and approval a draft Ecological Sampling Plan (ESP) in accordance with the provisions of AOC Section VII, Paragraph 39.b. The draft ESP will contain a revised schedule for submittal of any affected deliverables under the RI or FS Work Plans. The schedule also does not include conduct of any additional work which EPA may determine is required under the provisions of AOC Section VII, Paragraph 45. Should EPA require any such additional work and whether OCC or EPA performs such additional work, OCC shall submit a revised schedule for submittal of any affected deliverables under this RI Work Plan to the EPA for review and approval.

The schedule for the RI includes the following activities and events:

- Submittal of the draft Graphic Data Representation
- EPA review of the draft Graphic Data Representation
- Receipt of EPA approval of the ten additional core locations
- Submittal of the draft Screening Level HERA Report
- EPA review of the draft Screening Level HERA Report
- Receipt of EPA determination of whether field sampling is needed for the HERA
- Submittal of the draft HERA Report (or draft ESP depending on whether or not field sampling is needed; if an ESP is required, the ESP will contain a revised schedule.)
- Submittal of the Model Code Test Case Report
- Submittal of the draft Hydraulic and Sediment Transport Modeling Calibration/Verification Status Report
- EPA review and comment/meeting on the draft Hydraulic and Sediment Transport Modeling Calibration/Verification Status Report
- Submittal of the draft RI Report

The schedule for submittal of the revised draft HERA Report, the amended draft RI Report (Final RI Report), and modified Final RI Report to EPA are provided in AOC Section VII, Paragraphs 39.c, 38.a, and 44 respectively.

The estimated schedule for implementation of the combined RI/FS is presented in Figure 10-1. The estimated schedule is presented in terms of periods of time following receipt of approvals of the RI and FS Work Plans and other identified project deliverables (date dependent), rather than in calendar dates (date definite).

The estimated schedule is based on a sequencing of events considered likely to represent the critical path to completion of all deliverables required under the AOC. It does not include time representing any of the contingency conditions described below nor does it contain any provision for any additional work, should EPA determine that such additional work is necessary in accordance with the provisions of AOC Section VII, Paragraph 45. The schedule estimates 60 days for EPA review and comment on each draft plan or report requiring approvals, 10 days for holding a conference with EPA to discuss EPA comments or modifications, 30 days for revision in response to EPA comments 14 days for EPA review of plans and reports revised in response to EPA comments and 30 days for EPA review and comment on the Model Code Test Case Report. This EPA review and response time represents approximately one third of the total time represented by the critical path in the estimated schedule presented in Figure 10-1.

Under the Feasibility Study, the duration of the Alternatives Array Document work is given as 763 days. This time period is reflective of the fact that completion of portions of this Alternatives Array Document are dependent upon completion of other phases of the AOC work. The Feasibility Study Tasks 1A (Description of the Current Situation), 1B (Identification of Preliminary Remedial Action Objectives, Preliminary General Response Actions, and Preliminary Identification of Potential ARARs) and 1C (Identification and Screening of Preliminary Remedial Technologies) can be initiated

upon EPA approval of the FSWP (see Section 4.0 of the FSWP for a detailed task description). Task 1D (Statement of Purpose) can be initiated once the analytical data are obtained from the RI (corresponds to the end of Item 8 on Figure 10-1) and OCC receives comment on the HERA Report (item 13 on Figure 10-1). The other Feasibility Study Tasks (2 and 3A) that must be completed before preparation of the Alternatives Array Document are dependent upon the results from the risk assessment from the draft HERA and the sediment mobility modeling of the stressed condition (item 27 on Figure 10-1) and therefore can be initiated after receipt of written comment on the draft HERA, or after completion of the Calibration/Verification Evaluation and Report (item 25 on Figure 10-1), whichever is later.

The field programs (items 20 and 21 on Figure 10-1) associated with the Sediment Mobility Modeling are designed to include sampling events during the spring, fall and summer seasons. Since the date of receipt of EPA approval of the RIWP is not known, a total period of one year is scheduled for this field work to ensure that sampling can occur during these three seasons. However, the second and third sampling events (item 21 on Figure 10-1) can be conducted concurrently with the hydraulic and sediment transport analysis so that this specification of a full year for this field work is not expected to affect the time required for conducting the Sediment Mobility Modeling.

TABLE 10-1
PREREQUISITE EVENTS AND TIME REQUIRED FOR SUBMITTAL
OF REPORTS DESCRIBED IN THE REMEDIAL INVESTIGATION WORK PLAN

Report or Plan	Prerequisite Event	Submittal Date (Time Required Following Prerequisite Event in (Calendar Days))
• Submittal of draft Graphic Data Representation Report (SOW Section B.3.a.i.(3))	Receipt of written notification of approval of RIWP (AOC Section VII, Paragraph 35)	90
• Submittal of draft Screening Level HERA Report (AOC Section VII, Paragraph 39)	Receipt of written notification of approval of RIWP (AOC Section VII, Paragraph 35)	150
• Submittal of draft HERA Report or draft ESP depending on whether field sampling is needed (AOC Section VII, Paragraph 39.a and 39.b)	Receipt of written notification as to whether field sampling is needed (AOC Section VII, Paragraph 39.a)	60
• Submittal of Model Code Test Case Report	Receipt of written notification of approval of RIWP (AOC Section VII, Paragraph 35)	180

**TABLE 10-1
(Concluded)**

Report or Plan	Prerequisite Event	Submission Date (Time Required Following Prerequisite Event in (Calendar Days))
<ul style="list-style-type: none"> Submittal of draft Hydraulic and Sediment Transport Modeling Calibration/ Verification Status Report 	Receipt of written notification of approval of RIWP (AOC Section VII, Paragraph 35)	578
<ul style="list-style-type: none"> Submittal of draft RI Report (AOC Section VII, Paragraph 37) 	Receipt of written notification of approval of RIWP (AOC Section VII, Paragraph 35)	770
	Receipt of EPA approval of ten additional core locations (B.3.a.i.(3))	288
	Receipt of EPA approval of revised HERA Report (AOC Section VII, Paragraph 39.c)	84

NOTE: For each report or plan, the submittal date will be the latest of the dates determined by adding the time required following each given prerequisite event to the date of completion of the given prerequisite events.

This document was developed as part of the conduct of a Remedial Investigation/Feasibility Study in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Contingency Plan to investigate the nature and extent of contamination in sediments in the Six Mile Passaic River Study Area, NJ, including historical and on-going sources. These documents have been developed in cooperation with, and were approved under, CERCLA by U.S. EPA Region 2. The reader is cautioned to carefully consider the specialized goals and objectives of these investigations, and to review all related documents.

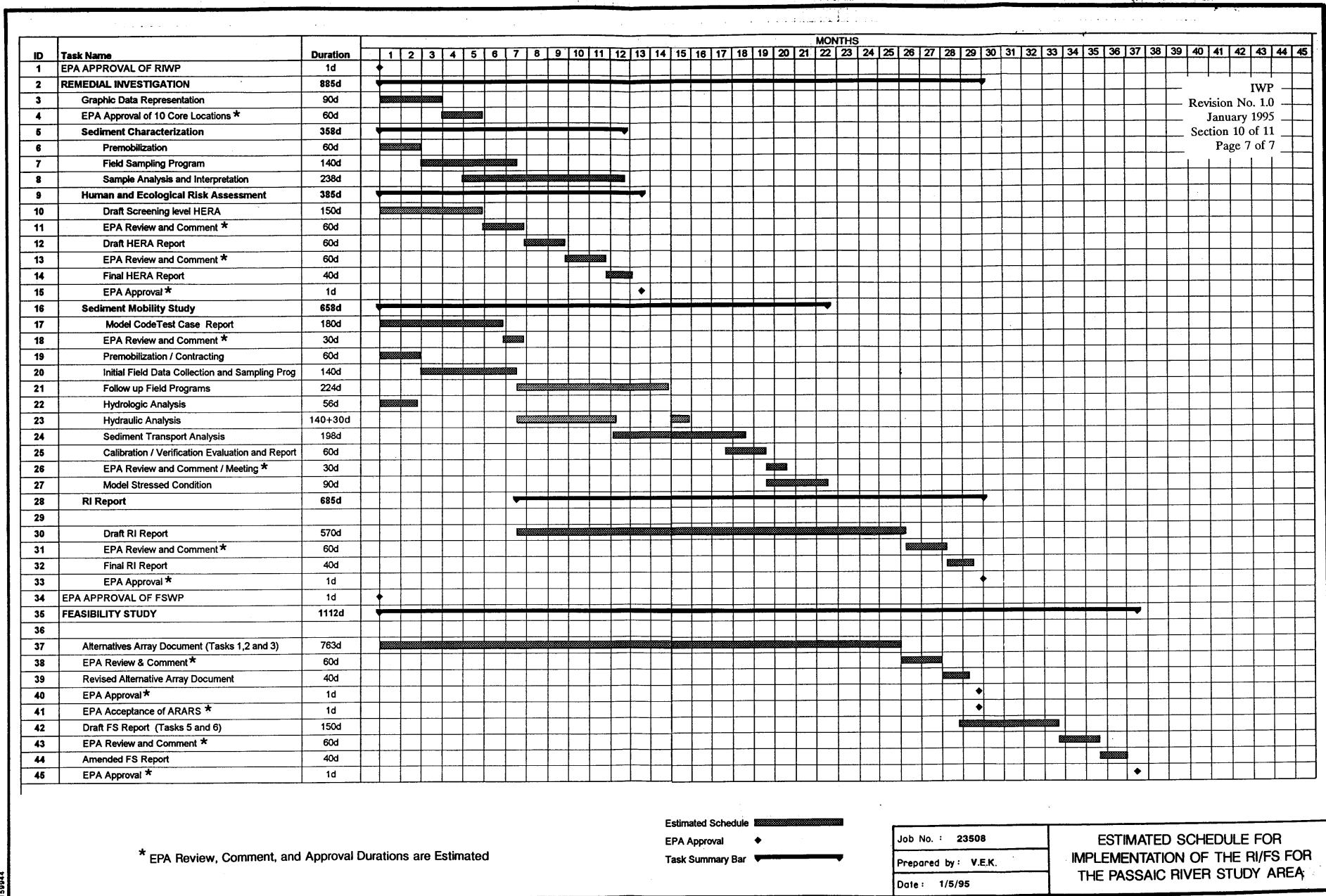


FIG. 10-1

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